CLAIMS

1. A cutting tool insert particularly useful for turning of cast irons comprising a cemented carbide body and a coating, said body having a composition of from about 3.0 to about 9.0 wt.% Co, from about 4.0 to about 10.0 wt.% of cubic carbonitride forming elements from groups IVb and Vb of the periodic table, N, C, and WC, and a from about 5 to about 50 μm thick surface zone, which is binder phase enriched and nearly free of cubic carbonitride phase, with a maximum binder phase content in the surface zone of from about 1.2 to about 3 by volume of the bulk binder phase content, said coating comprising:

- a first, innermost layer of $TiC_xN_yO_z$ with $0.7 \leq x+y+z \leq 1$ with equiaxed grains and a total thickness <2 μm;

- a layer of $TiC_xN_yO_z$ with $0.7 \leq x+y+z \leq 1$ with a thickness of from about 3 to about 14 μm with columnar grains; and

- at least one layer of Al_2O_3 with a thickness of from about 2 to about 14 μm.

2. The cutting tool insert of claim 1 wherein said cast irons further comprises a cemented carbide body and a coating, said body having a composition of from about 4.0 to about 7.0 wt.% Co, from about 6.0 to about 9.0 wt.% of cubic carbonitride forming elements from groups IVb and Vb of the periodic table and wherein said coating further comprises:

- a first, innermost layer of $TiC_xN_yO_z$ with $z<0.5$ with equiaxed grains and a total thickness >0.1 μm;

- a layer of $TiC_xN_yO_z$ with $z<0.2$, $x>0.3$ and $y>0.2$ with a thickness of from about 4 to about 12 μm with columnar grains; and

- at least one layer of Al_2O_3 with a thickness of from about 3 to about 10 μm.

3. The cutting tool insert of claim 2 wherein said coating comprising:

- a first, innermost layer of $TiC_xN_yO_z$ with $y>x$ and $z<0.2$ with equiaxed grains and a total thickness <1 μm;

- a layer of $TiC_xN_yO_z$ with $x>0.4$ with a thickness of from about 5 to about 10 μm with columnar grains; and

- at least one layer of Al_2O_3 with a thickness of from about 3 to about 8 μm.

4. The cutting tool inset of claim 3 wherein said coating further comprising said first innermost layer of $TiC_xN_yO_z$ with $y>0.7$.

5. The cutting tool insert of claim 1 further comprising an outer layer of $TiC_xN_yO_z$, $HfC_xN_yO_z$ or $ZrC_xN_yO_z$ or mixtures thereof with $0.7 \leq x+y+z \leq 1.2$ with thickness <3 μm.

6. The cutting tool insert of claim 5 wherein said outer layer of $TiC_xN_yO_z$, $HfC_xN_yO_z$ or $ZrC_xN_yO_z$ or mixtures thereof with $y>x$ and $z<0.4$ with thickness from about 0.4 to about 1.5 μm.

7. The cutting tool insert of claim 6 wherein said outer layer of $TiC_xN_yO_z$, $HfC_xN_yO_z$ or $ZrC_xN_yO_z$ or mixtures thereof with $y>0.4$.

8. The cutting tool insert of claim 7 wherein said outer layer of $TiC_xN_yO_z$, $HfC_xN_yO_z$ or $ZrC_xN_yO_z$ or mixtures thereof with $y>0.7$.

9. The coated cutting tool insert of claim 1 wherein the S-value of the cemented carbide body is within the range from about 0.78 to about 0.95 and that the mean intercept length of the WC phase is from about 0.50 to about 0.95 μm.

10. The coated cutting tool insert of claim 9 wherein the S-value of the cemented carbide body is within the range from about 0.80 to about 0.92 and that the mean intercept length of the WC phase is from about 0.60 to about 0.85 μm.

11. The coated cutting tool insert of claim 1 wherein N is present in the sintered body in an amount corresponding to >1.0 % of the weight of the elements from groups IVb and Vb of the periodic table.

12. The coated cutting tool insert of claim 11 wherein N is present in the sintered body in an amount corresponding to from about 1.7 to about 5.0 % of the weight of the elements from groups IVb and Vb of the periodic table.

13. The coated cutting tool insert of claim 1 wherein the amount of cubic carbonitrides corresponds to from about 0.5 to about 4.0% by weight of the cubic carbonitride forming elements titanium, tantalum and niobium.

14. The coated cutting tool insert of claim 13 wherein the amount of cubic carbonitrides corresponds to from about 1.0 to about 4.0% by weight of the cubic carbonitride forming elements titanium, tantalum and niobium.

15. The coated cutting tool insert of claim 13 wherein the ratio between tantalum and niobium is within from about 0.8 to about 4.5 by weight and the ratio between titanium and niobium is within from about from about 0.5 to about 7.0 by weight.

16. The coated cutting tool insert of claim 15 wherein the ratio between tantalum and niobium is within from about 1.2 to about 3.0 by weight and the ratio

between titanium and niobium is within from about from about 1.0 to about 4.0 by weight.

17. The use of a cutting tool insert of claim1 for turning in cast irons at cutting speeds of from about 100 to about 700 m/min with feed values of from about 0.04 to about 1.0 mm/rev., depending on cutting speed and insert geometry.

18. The use of a cutting tool insert of claim17 for turning in cast irons at cutting speeds of from about 100 to about 600 m/min.

19. The use of the cutting tool insert of claim 17 wherein the cutting spped is from about 100 to about 600 m/min.